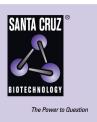
SANTA CRUZ BIOTECHNOLOGY, INC.

Desmuslin (E-15): sc-49649



BACKGROUND

Cytoskeletal intermediate filaments constitute a diverse group of proteins that are expressed in a highly tissue-specific manner. Intermediate filaments are composed of two-chain, α -helical, coiled-coil molecules arranged on an imperfect helical lattice. They are widely used as markers for distinguishing individual cell types within a tissue and identifying the origins of metastatic tumors. Desmuslin is a type-VI intermediate filament which may act as a mechanical support to the muscle fibers by forming a linkage between the extracellular matrix via the Z-disk and the dystrophin-associated protein complex (DAPC). The Desmuslin protein interacts with desmin as well as α -dystrobrevin and is mainly expressed in heart and skeletal muscle, but can also be detected in brain. Desmuslin contains a conserved rod domain, a short N-terminal domain and a long C-terminal domain.

REFERENCES

- Mizuno, Y., Thompson, T.G., Guyon, J.R., Lidov, H.G., Brosius, M., Imamura, M., Ozawa, E., Watkins, S.C. and Kunkel, LM. 2001. Desmuslin, an intermediate filament protein that interacts with α-dystrobrevin and desmin. Proc. Natl. Acad. Sci. USA 98: 6156-6161.
- Mizuno, Y., Puca, A.A., O'Brien, K.F., Beggs, A.H. and Kunkel, L.M. 2002. Genomic organization and single-nucleotide polymorphism map of desmuslin, a novel intermediate filament protein on chromosome 15q26.3. BMC Genet. 2: 8.
- Mizuno, Y., Guyon, J.R., Watkins, S.C., Mizushima, K., Sasaoka, T., Imamura, M., Kunkel, L.M. and Okamoto, K. 2004. β-synemin localizes to regions of high stress in human skeletal myofibers. Muscle Nerve 30: 337-346.
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- 5. Robson, R.M., Huiatt, T.W. and Bellin, R.M. 2005. Muscle intermediate filament proteins. Methods Cell Biol. 78: 519-553.

CHROMOSOMAL LOCATION

Genetic locus: SYNM (human) mapping to 15q26.3; Synm (mouse) mapping to 7 C.

SOURCE

Desmuslin (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Desmuslin of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49649 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Desmuslin (E-15) is recommended for detection of Desmuslin isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Desmuslin (E-15) is also recommended for detection of Desmuslin isoforms 1 and 2 in additional species, including porcine.

Suitable for use as control antibody for Desmuslin siRNA (h): sc-60525, Desmuslin siRNA (m): sc-60526, Desmuslin shRNA Plasmid (h): sc-60525-SH, Desmuslin shRNA Plasmid (m): sc-60526-SH, Desmuslin shRNA (h) Lentiviral Particles: sc-60525-V and Desmuslin shRNA (m) Lentiviral Particles: sc-60526-V.

Molecular Weight of Desmuslin: 170 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try Desmuslin (B-8): sc-376944 or Desmuslin (A-8): sc-374484, our highly recommended monoclonal aternatives to Desmuslin (E-15).